CUSTOMER NO 24737

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE HONORABLE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of A. KOOIMAN	)	Examiner: P. SHAH
	)	Art Unit: 2626
Serial No.: 10/532,919	)	
	)	Confirmation: 4947
Filed: January 16, 2006	)	
For: **METHOD FOR OPERATING A SPEECH RECOGNITION SYSTEM**	)	
Date of Final Office Action: July 1, 2008	)	
Attorney Docket No.: PHDE020239US/PKRX 2 00111	)	Cleveland, OH 44114 December 24, 2008

BRIEF ON APPEAL

This is an Appeal from the Final Rejection of July 1, 2008 finally rejecting claims 1-13.

CERTIFICATE OF ELECTRONIC TRANSMISSION

I certify that this **BRIEF ON APPEAL** and accompanying documents in connection with U.S. Serial No. 10/532,919 are being filed on the date indicated below by electronic transmission with the United States Patent and Trademark Office via the electronic filing system (EFS-Web).

12-24-08
Date

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I. STATEMENT OF REAL PARTY IN INTEREST (41.37(f))

The real party in interest for this appeal and the present application is Koninklijke Philips Electronics, N.V.

II. STATEMENT OF RELATED CASES (41.37(g))

None

III. JURISDICTIONAL STATEMENT (41.37(h))

The Board has jurisdiction under 35 U.S.C. 134(a).

The Examiner mailed a final rejection on July 1, 2008, setting a three-month shortened statutory period for response.

The time for responding to the final rejection expired on October 1, 2008. Rule 134.

A notice of appeal was filed on September 30, 2008.

The time for filing an appeal brief is two months after the filing of a notice of appeal. Bd.R. 41.37(c). The time for filing an appeal brief expired on November 30, 2008. A request for a one-month extension of time under Rule 136(a) is being submitted with the filing of the appeal brief.

The appeal brief is being filed on the date set forth on the Certificate of Transmission. A request for a one-month extension of time under Rule 136(a) and an Amendment are being submitted concurrently with the appeal brief.

IV. TABLE OF CONTENTS (41.37(i))

V. TABLE OF AUTHORITIES (41.37(j))

Cases

VI. STATUS OF AMENDMENTS (41.37(l))

A reply under 37 CFR § 1.116 of September 2, 2008 was entered.

A further amendment is being filed concurrently with this appeal. Because this amendment merely addresses the Examiner's objections to the drawings and places claim 10 in independent form, it is believed that this amendment will be entered.

VII. **GROUNDS OF REJECTION TO BE REVIEWED (41.37(m))**

Whether claims 1, 2, 4, and 10 are anticipated in the sense of 35 U.S.C. § 102 by Polikaitis (US 6,336,091).

Whether claim 3 is obvious in the sense of 35 U.S.C. § 103 over Polikaitis as modified by Nguyen (US 5,765,130), further in view of Crane (US 7,069,221).

Whether claim 5 is obvious in the sense of 35 U.S.C. § 103 over Polikaitis in view of Gerven (Proc. Eurospeech, 1997).

Whether claim 6 is obvious in the sense of 35 U.S.C. § 103 over Polikaitis in view of Marx (US 6,173,266).

Whether claim 7 is obvious in the sense of 35 U.S.C. § 103 over Polikaitis in view of Marx, further in view of Vanbuskirk (US 6,505,155).

Whether claim 8 is obvious in the sense of 35 U.S.C. § 103 over Polikaitis in view of Vanbuskirk, further in view of Steinbrenner (US 6,754,310).

Whether claims 9 and 11-13 are obvious in the sense of 35 U.S.C. § 103 over Polikaitis in view of Marx, further in view of Bridges (US 5,978,763).

VIII. **STATEMENT OF FACTS (41.37(n))**

1. Speech recognition systems can be operated by users from an arbitrary environment by means of a communication terminal (present application [0004]).

2. The access of the speech recognition system can be by a communications terminal whose reception quality can vary strongly, even strongly within a session (present application [0004]).

3. On one hand, the reception quality can be determined by the quality of the reception channel, for example, the telephone link (present application [0004]).

4. On the other hand, the reception quality can be determined by background noise level which itself is dependent on the environment in which the user is present (present application [0004]).

5. Decision block 230 of Polikaitis determines whether the user spoke over the start of the speech acquisition window, Error 1 (Polikaitis, column 6, lines 29-44).

6. Error 1 (speaking over start) is illustrated at 420 (Polikaitis, lines 20-22, Fig 4).

7. Decision block 240 of Polikaitis determines whether the user spoke over the end of the speech acquisition window, Error 2 (Polikaitis, column 7, lines 15-32).

8. Error 2, speaking over the end of the speech acquisition window is illustrated at 430 (Polikaitis, column 6, lines 22-23, Fig. 4).

9. Decision block 250 determines whether the user spoke too loudly, Error 3 (Polikaitis, column 8, lines 3-11).

10. The error of speaking too loudly is illustrated by chart 440 (Polikaitis, column 6, lines 24-25, Fig. 4).

11. Decision block 260 of Polikaitis determines whether the user spoke too softly, Error 4 (Polikaitis, column 8, lines 46-54).

12. The error of speaking too softly is illustrated by chart 450 (Polikaitis, column 6, lines 26-27).

13. Polikaitis is very specific to systems having a speech acquisition window as illustrated in Figure 4.

14. Column 5, lines 27-34 of Nguyen referenced by the Examiner, contrary to the Examiner's assertion, does not deactivate a barge-in mode.

15. Gerven is concerned with determining when speech is present and when only background noise is present (Gerven, page 1, second paragraph).

16. Gerven presents three different algorithms, Algorithm 1, Algorithm 2, Algorithm 3 (Gerven, sections 2.1, 2.2, 2.3).

17. Gerven compares the performance of these three algorithms (Gerven, section 3).

18. Steps 260, 270 of Marx determine a confidence level and if the confidence is low, a step 15 prompts the user with a prompt such as "I'm sorry, I didn't hear your response. Please repeat your answer now." (Marx column 2, lines 5-9 and 26-39).

19. Steinbrenner is directed to a telephony interface device for providing status and diagnostic information for a telephone operatively coupled to a telephone interface device (Steinbrenner, column 1, lines 7-11).

20. Although the Examiner lists Vanbuskirk in the rejection, in paragraph 16, page 13 of the Final Rejection, the Examiner does not apply Vanbuskirk to claim 8 and makes no assertions as to what it would contribute.

21. In paragraph 17a of the Final Rejection, the Examiner asserts that a quality control device adapted to determine the reception quality value or a noise value representing a current reception quality is met by steps or decision boxes 230, 240, 250, 260.

22. In paragraph 17c of the Final Rejection, the Examiner acknowledges that Polikaitis does not disclose that a control means causes the speech recognition system to send an alert signal.

23. Rather, in paragraph 17d, the Examiner asserts that Marx teaches and renders such a control means obvious.

24. Bridges, as the Examiner notes in paragraph 17h of the Final Rejection, does disclose a comparator.

25. Specifically, the comparator 268 of Bridges determines whether or not an incoming signal is direct speech to deactivate the speech generator and activate the speech recognizer (Bridges, column 6, lines 5-13).

26. On page 18 of the Final Rejection, the Examiner asserts that Marx discloses a barge-in switching unit.

27. To the contrary, Marx, at column 7, lines 20-28 discloses software for detecting a barge-in.

IX. ARGUMENT (41.37(o))

A. Claims 1, 4 and 10 are not anticipated by Polikaitis

1. Previously Presented Arguments(Previously Presented starting on page 8 of the 37 CFR § 1.116 reply of September 2, 2008)

At the outset Applicants rely at least on the following standards with regard to proper rejections under 35 U.S.C. § 102. Notably, a proper rejection of a claim under 35 U.S.C. § 102 requires that a single prior art reference disclose each element of the claim. *See, e.g., W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303, 313 (Fed. Cir. 1983). Anticipation requires that each and every element of the claimed invention be disclosed in a single prior art reference. *See, e.g., In re Paulsen,* 30 F.3d 1475, 31 USPQ2d 1671 (Fed. Cir. 1994); *In re Spada*, 911 F.2d 705, 15 USPQ2d 1655 (Fed. Cir. 1990). Alternatively, anticipation requires that each and every element of the claimed invention be embodied in a single prior art device or practice. *See, e.g., Minnesota Min. & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc.,* 976 F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992). For anticipation, there must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention. *See, e.g., Scripps Clinic & Res. Found. v. Genentech, Inc.,* 927 F.2d 1565, 18 USPQ2d 1001 (Fed. Cir. 1991).

Claim 1 is drawn to a method for operating a speech recognition system. The method comprises:

detecting a speech signal (S_I) of a user;

analyzing the speech signal to recognize speech information contained in the speech signal (S_I);

determining a reception quality value (S_Q) or a noise value which represents a current reception quality; and

switching the speech recognition system over to a mode of operation, which is less sensitive to noise when the noise value exceeds a noise threshold, or outputting an alert signal (S_W) to the user when the reception quality value (S_Q) drops below a given reception quality threshold, or both.

In rejecting claim 1, the Office Action directs Applicants to the various thresholds in 230, 240,250 and 260 for the reception quality threshold. While there are thresholds disclosed, none are reception quality thresholds or a noise threshold as claimed. Rather there are start energy thresholds and end energy thresholds, which relate to energy in frames. As such, the applied art fails to disclose at least one feature of claim 1. As a result, a *prima facie* case of anticipation has not been established. Therefore, claim 1 and the claims that depend therefrom are patentable over the applied art.

2. **New Arguments**

Claim 1 calls for determining a reception quality value or a noise value which represents a current reception quality. Speech recognition

systems can be operated by users from an arbitrary environment by means of a communication terminal (present application [0004]). The access of the speech recognition system can be by a communications terminal whose reception quality can vary strongly, even strongly within a session (present application [0004]). On one hand, the reception quality can be determined by the quality of the reception channel, for example, the telephone link (present application [0004]). On the other hand, the reception quality can be determined by background noise level which itself is dependent on the environment in which the user is present (present application [0004]). The Examiner asserts that the thresholds 230, 240, 250, and 260 determine a reception quality value or noise value present in a current reception quality. The Applicants disagree.

Decision block 230 of Polikaitis determines whether the user spoke over the start of the speech acquisition window, Error 1 (Polikaitis, column 6, lines 29-44). Error 1 (speaking over start) is illustrated at 420 (Polikaitis, lines 20-22, Fig 4). Speaking over the start of the listening window relates to whether the user is properly using the system and does not make any determination regarding a current reception quality.

Decision block 240 of Polikaitis determines whether the user spoke over the end of the speech acquisition window, Error 2 (Polikaitis, column 7, lines 15-32). Speaking over the end of the speech acquisition window is illustrated at 430 (Polikaitis, column 6, lines 22-23, Fig. 4).

Speaking over the end of the speech acquisition window is again a user error and now a determination of a current reception quality.

Decision block 250 determines whether the user spoke too loudly, Error 3 (Polikaitis, column 8, lines 3-11). The error of speaking too loudly is illustrated by chart 440 (Polikaitis, column 6, lines 24-25, Fig. 4). Speaking too loud is again a user error. Determining if a user is speaking too loud is not a determination of a reception quality, a noise value, or other variable which represents a current reception quality.

Finally, decision block 260 of Polikaitis determines whether the user spoke too softly, Error 4 (Polikaitis, column 8, lines 46-54). The error of speaking too softly is illustrated by chart 450 (Polikaitis, column 6, lines 26-27). Similarly, determining if the user is speaking too softly is a determination of a user error. It is not a determination of a reception quality value nor a noise quality value, nor any other value which represents a current reception quality.

Thus, the decisions or determinations made by Polikaitis all relate to user errors and do not relate to determining a value which represents a current reception quality in the sense of strength of the cell phone or other incoming signal, noisy environment of the user, or other factors other than user error.

3. New Arguments

Claim 1 further calls for switching the speech recognition system over to a mode of operation which is less sensitive to noise when the noise value exceeds a noise threshold or outputting an alert signal to the user when the reception quality value drops below a given reception quality threshold. When Polikaitis determines that one of Error 1-Error 4 has occurred, Polikaitis merely prompts the user and/or adjusts the window size or the level of amplification. Polikaitis does not switch over to a mode of operation which is less sensitive to noise. Error 1 and Error 2 are not related to noise. With Error 3, if the amplification is adjusted downward, this is not a different mode of operation and it is more sensitive to noise. In Error 4, in which the user is speaking too quietly, Polikaitis increases the amplification which also amplifies the noise. Adjusting the amplification is not changing to a different mode of operation, much less a mode which is less sensitive to noise. Higher amplification would make the Polikaitis system more sensitive to noise.

Polikaitis does not determine a reception quality value, as discussed above. Rather, Polikaitis determines user error. If the Polikaitis user commits one of Errors 1-4, Polikaitis provides instructions how to cure the error. Instructing a user how to cure user error does not meet the limitation of outputting an alert signal which alerts the user that the reception quality value is below a given quality threshold.

For the reasons set forth above, it is submitted that claim 1 and claim 10 are not anticipated by Polikaitis. It is further submitted that because Polikaitis does not meet the requirements of the base claim, the 35 U.S.C. § 102 and § 103 rejections of dependent claims 2-8 must also fail.

B. **(New) Claim 2 is not anticipated by Polikaitis**

Claim 2 calls for automatically setting a speech recognition system to a previous mode of operation. Polikaitis does not change modes of operation. At best, Polikaitis lengthens the speech acquisition window, increases the amplification or decreases the amplification, but does not change to a different mode. Adjusting the length of a speech acquisition window or the amount of amplification is not resetting to a previous mode of operation.

Moreover, claim 2 calls for the resetting to the previous mode to be when the reception quality value exceeds a reception quality threshold or the noise value drops below the noise threshold. Polikaitis extends the speech acquisition window in response to user error. Even if adjusting the length of the acquisition window were to be considered a mode, which it is not, Polikaitis does not describe changing the length of the user window in response to a reception quality value exceeding a quality threshold. First, speaking over the start or the end of the window is not a

reception quality value. Second, speaking or not speaking over the beginning or end of the window is not a condition that exceeds or does not exceed a threshold. Analogously, there is no suggestion in Polikaitis of resetting mode of operation in response to noise dropping **below** a noise threshold.

Polikaitis does not set forth criteria to returning the window length or amplification to their original length or amplitude. Returning to these original settings is not a change of mode and is not responsive to a threshold level being crossed.

Accordingly, it is submitted that claim 2 is not anticipated by Polikaitis.

C. **(New) Claim 3 is not rendered obvious by Polikaitis in view of Nguyen**

Claim 3 calls for deactivating a barge-in mode of operation when the reception quality value drops below the reception quality threshold or the noise value exceeds the noise value threshold. First, Polikaitis has no barge-in mode to deactivate. Rather, Polikaitis is very specific to systems having a speech acquisition window as illustrated in Figure 4.

Second, column 5, lines 27-34 of Nguyen referenced by the Examiner, contrary to the Examiner's assertion, does not deactivate a barge-in mode. Rather, column 5, lines 27-34 provides a description for

how the Nguyen system tells that the user is barging-in. Nguyen is always in a barge-in mode. Thus, neither Polikaitis, which has no barge-in system, nor Nguyen which is always in a barge-in mode switch into or out of a barge-in mode nor do they teach or fairly suggest deactivating a barge-in system, much less what criteria should be used for such a deactivation.

Nguyen would first need to inspire Polikaitis to add a barge-in system. Even if Nguyen would have so inspired Polikaitis, which it is submitted that he would not have, neither Polikaitis nor Nguyen inform nor put the reader in possession of the idea that one should from time to time deactivate a barge-in aspect, much less what criteria one would or should use to deactivate a barge-in aspect.

Accordingly, it is submitted that claim 3 distinguishes patentably over the references of record.

D. (New) Claim 5 is patentable over Polikaitis and Gerven

Claim 5 calls for determining the reception quality value or the noise on the basis of a background signal which is received prior to a beginning of an utterance or in a speech pause of the user, or both. Gerven does not supply this shortcoming of Polikaitis. Rather, Gerven is concerned with determining when speech is present and when only

background noise is present (Gerven, page 1, second paragraph). Gerven presents three different algorithms, Algorithm 1, Algorithm 2, Algorithm 3 for differentiating between noise and speech (Gerven, sections 2.1, 2.2, 2.3). Gerven compares the performance of these three algorithms (Gerven, section 3). While Gerven addresses, in detail, how to tell when speech is present, nowhere in Gerven is there any suggestion of analyzing the signal when no speech is present to determine either a reception quality value or a noise value for switching modes of operation. If Polikaitis were to consider the Gerven reference, Polikaitis might be motivated to select one of Gerven's Algorithms 1, 2, or 3, but Polikaitis would not be put in possession or be motivated to alter the Polikaitis system to analyse the background signal . Gervan dies not teach or fairly suggest the subject matter of claim 5.

Accordingly, it is submitted that claim 5 distinguishes patentably over the references of record.

E. **(New) Claims 6 and 7 is patentable over Polikaitis and Marx**

Claim 6 calls for a reception corruption indication signal. Marx does not cure this shortcoming of Polikaitis. Steps 260, 270 of Marx determine a confidence level and if the confidence is low, a step 15 prompts the user with a prompt such as "I'm sorry, I didn't hear your

response. Please repeat your answer now." (Marx column 2, lines 5-9 and 26-39). A lack of confidence flows from factors such factors as speaking too loud or too soft, accents, word choice, and the like. Thus, rather than a reception corruption indication signal, Marx merely determines a confidence level with which the response was interpreted. Thus, Claim 6 goes to reception; whereas, Marx goes to interpretation confidence. Accordingly, it is submitted that claim 6 and claim 7 dependent therefrom distinguish patentably over the references of record.

F. (New) Claim 8 is patentable over Polikaitis , Vanbuskirk, and Steinbrenner

Claim 8 calls for analyzing an incoming signal for a type of disturbance causing the reception quality value to be below the reception quality threshold or the noise value to be above the noise threshold. Steinbrenner is directed to a telephony interface device for providing status and diagnostic information for a telephone operatively coupled to a telephone interface device (Steinbrenner, column 1, lines 7-11). That is, Steinbrenner is concerned with telephone system diagnostic information, particularly when a telephone is off the hook, which provides problems to the network switching system. Adding the Steinbrenner type system to Polikaitis would merely tell Polikaitis when a phone is off the hook, or the like. However, if a telephone is off the hook, the Polikaitis system

would never come into play. That is, if the user's telephone is off the hook and not in use, the user will not be calling in to the Polikaitis system so Polikaitis has no need for or use for the information that a telephone somewhere in the network is off the hook or otherwise experiencing network problems.

Although the Examiner lists Vanbuskirk in the rejection, in paragraph 16, page 13 of the Final Rejection, the Examiner does not apply Vanbuskirk to claim 8 and makes no assertions as to what it would contribute. It is submitted that Vanbuskirk would contribute nothing to the combination of claim 8.

Accordingly, it is submitted that claim 8 distinguishes patentably and unobviously over the references of record.

G. Claims 9 and 11-13 distinguish patentably over Polikaitis, Marx, and Bridges

1. Previously Presented Arguments (Previously Presented in the 37 CFR § 1.116 reply of September 2, 2008)

Claims 2-9 are rejected under 35 U.S.C. § 103(a) as being unpatentable in view of *Politakis, et al.* and other secondary and tertiary references.

While Applicants in now way concede the propriety of these rejections, because claims 2-8 depend from claim 1, these claims are

patentable over the applied art for at least the same reasons and in view of their additionally recited subject matter.

Claim 9 is drawn to a speech recognition system and features:

means for detecting a speech signal (S_I) of a user;

a speech recognition device adapted to analyze the detected speech signal (S_I) to recognize speech information contained in the speech signal;

a quality control device adapted to determine a reception quality value (S_Q) or a noise value, representing a current reception quality,

a comparator adapted to compare the reception quality value (S_Q) with a predetermined reception quality threshold or for comparing the noise value with a given noise threshold,

and control means adapted to switch the speech recognition system over to a mode of operation which is less sensitive to noise, or an alert signal (S_W) is output to the user when the reception quality value drops below the reception quality threshold or when the noise value exceeds the noise threshold, or both.

Like the rejection of claim 1, the Office Action turns the various thresholds in 230, 240,250 and 260 of *Politakis, et al.* for the reception quality threshold. While there are thresholds disclosed, none are reception quality thresholds or a noise threshold as claimed. Rather there are start energy thresholds and end energy thresholds, which relate to energy in frames. As such, the applied art fails to disclose at least one feature of claim 9. As a result, a *prima facie* case of obviousness has not been established. Therefore, claim 9 and the claims that depend therefrom are patentable over the applied art.

2. **New Arguments**

Claim 9 calls for a quality control device adapted to determine a reception quality value or a noise value representing a current reception quality. In paragraph 17a of the Final Rejection, the Examiner asserts that this met by steps or decision boxes 230, 240, 250, 260. To the contrary, the steps merely detect user error. Particularly, steps or decisions 230, 240 determine if the user is speaking over the beginning or the end of the speech acquisition window. These boxes make no determination of a reception quality value, a noise value, or any other value that represents a current reception quality. Again, these steps determine user error. Steps or decisions 250, 260 determine whether a speaker is speaking too loud or too soft, i.e., another user error. Determining whether a speaker is speaking too loud or too soft does not determine a reception quality value or a noise value, or any other value representing a current reception quality. These steps 230, 240, 250, 260 of Polikaitis all relate to the user's ability to use the system and do not relate to the quality of the reception or the received signal.

3. **New Arguments**

In paragraph 17c of the Final Rejection, the Examiner acknowledges that Polikaitis does not disclose that a control means causes the speech recognition system to send an alert signal. Rather, in

paragraph 17d, the Examiner asserts that Marx teaches and renders such a control means obvious. To the contrary, Marx does not disclose outputting an alert signal either that the reception quality has dropped below a threshold or that a noise value exceeds a threshold. Rather, elements 260, 270, 280, and 215 of Marx relate to whether an answer was understood. Marx suggests that if the system does not have sufficient confidence in its understanding of the answer, then step 215 should prompt the user such as "I'm sorry, I didn't hear your response. Please repeat your answer now." Thus, like Polikaitis, Marx is not making a determination whether reception quality is below a threshold or whether noise exceeds a threshold nor outputs an alert signal indicative of low reception quality or high noise. Accordingly, it is submitted that Marx does not cure this shortcoming of Polikaitis.

4. **New Arguments**

Bridges, as the Examiner notes in paragraph 17h of the Final Rejection, does disclose a comparator. However, the comparator 268 of Bridges is for a different purpose and produces a different result. Specifically, the comparator 268 of Bridges determines whether or not an incoming signal is direct speech to deactivate the speech generator and activate the speech recognizer (Bridges, column 6, lines 5-13). It is submitted that if one were to add the comparator 268 of Bridges to

Polikaitis, that Bridge's comparator would be used in a part of the system which would arbitrate between whether the unshown interface is in a mode for the user to provide a speech input 215 or whether the interface is a mode in which the user is prompted 270 or informed 275. The bridges comparator would neither replace steps 230, 240, 250, or 260 of Polikaitis, nor would replacing these steps with a comparator cure the shortcomings of Polikaitis noted above.

Accordingly, it is submitted that claim 9 and claims 11-13 distinguish patentably and unobviously over the references of record.

H. (New) Claim 12 is patentable over Polikaitis, Marx, and Bridges

Claim 12 calls for the control means to comprise a barge-in switching unit. First, it is submitted that requiring the barge-in switching unit now requires claim 11 to be interpreted in accordance with the Examiner's option (1) set forth in paragraph 17b of the Final Rejection. The Examiner does not assert and effectively concedes that Polikaitis does not disclose or teach switching modes.

On page 18 of the Final Rejection, the Examiner asserts that Marx discloses a barge-in switching unit. To the contrary, Marx, at column 7, lines 20-28 discloses software for detecting a barge-in. However, Marx does not suggest a barge-in switching unit for switching modes. Marx

merely discloses that, when barge-in protection is provided, a prompt going out to the user should be stopped in response to sensing a barge-in. The section of Marx relied upon by the Examiner does not disclose a barge-in switching unit.

Neither Polikaitis nor Marx (nor Bridges which was not applied for this purpose) disclose or fairly suggest switching modes, much less that the mode switching be achieved using a barge-in switching unit.

Accordingly, it is submitted that claim 12 distinguishes yet more forcefully over the references of record.

I. CONCLUSION

For all of the reasons discussed above, it is respectfully submitted that claims 1-13 are not anticipated by and distinguish patentably over the references of record. For all of the above reasons, a reversal of the rejections of all claims is requested.

Respectfully submitted,

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APPENDIX

X. CLAIMS SECTION (41.37(p))

1. (Rejected) A method for operating a speech recognition system (1), the method comprising:

detecting a speech signal (SI) of a user;

analyzing the speech signal to recognize speech information contained in the speech signal (SI);

determining a reception quality value (SQ) or a noise value which represents a current reception quality; and

switching the speech recognition system over to a mode of operation, which is less sensitive to noise when the noise value exceeds a noise threshold, or outputting an alert signal (SW) to the user when the reception quality value (SQ) drops below a given reception quality threshold, or both.

2. (Rejected) A method as claimed in claim 1, further comprising: automatically resetting the speech recognition system to a previous mode of operation when the reception quality value (SQ) exceeds the reception quality threshold or when the noise value drops below the noise threshold.

3. (Rejected) A method as claimed in claim 1, further comprising deactivating a barge-in mode of operation of the speech recognition system when the reception quality value drops below the reception quality threshold or the noise value exceeds the noise threshold.

4. (Rejected) A method as claimed in one of the claims 1, wherein the reception quality value (SQ) or the noise value is determined with a voice activity detector.

5. (Rejected) A method as claimed in one of the claims 1, wherein the reception quality value (SQ) or the noise value is determined on the basis of a background signal which is received prior to a beginning of an utterance, or in a speech pause of the user, or both.

6. (Rejected) A method as claimed in claim 4, wherein the voice activity detector applies the reception quality value (SQ) or the noise value or, when the reception quality value drops below the reception quality threshold or when the noise value exceeds the noise threshold, a reception corruption indication signal (SEB) to a dialog control device .

7. (Rejected) A method as claimed in one of the claims 6, further comprising: when the reception corruption indication signal (SEB) is received, or when the received reception quality value (SQ) drops below the reception quality threshold or the noise value exceeds the noise threshold, the dialog control device initiates an output of a prompt (SW) indicating that the reception conditions are poor.

8. (Rejected) A method as claimed in one of the claims 1, further comprising:

analyzing an incoming signal for a type of disturbance causing the reception quality value (SQ) to be below the reception quality threshold or the noise value to be above the noise threshold, and outputting a prompt (SW) to the user.

9. (Rejected) A speech recognition system, comprising:

means for detecting a speech signal (SI) of a user;

a speech recognition device adapted to analyze the detected speech signal (SI) to recognize speech information contained in the speech signal;

a quality control device adapted to determine a reception quality value (SQ) or a noise value, representing a current reception quality,

a comparator adapted to compare the reception quality value (SQ) with a predetermined reception quality threshold or for comparing the noise value with a given noise threshold,

and control means adapted to switch the speech recognition system over to a mode of operation which is less sensitive to noise, or an alert signal (SW) is output to the user when the reception quality value drops below the reception quality threshold or when the noise value exceeds the noise threshold, or both.

10. (Rejected) A method as claimed in claim 1, further comprising a computer program executable on a computer readable medium for carrying out all of the method.

11. (Rejected) A speech recognition system as claimed in claim 9, wherein the means for detecting a speech signal comprises a voice activity detector.

12. (Rejected) A speech recognition system as claimed in claim 9, wherein the control means further comprises a barge-in switching unit.

13. (Rejected) A speech recognition system as claimed in claim 9, wherein the control means further comprises a dialog control device.

APPENDIX (Continued)

XI. CLAIM SUPPORT AND DRAWING ANALYSIS SECTION (41.37(r))

1. A method for operating a speech recognition system (1) {**[0001], [0020], Figs. 1&2**}, the method comprising:

detecting a speech signal (SI) of a user {**[0020], [0029]-[0031] [0001], [0020], Figs. 1&2**};

analyzing the speech signal to recognize speech information contained in the speech signal (SI) {**[0020]. [0031] [0001], [0020], Figs. 1&2**;

determining a reception quality value (SQ) or a noise value which represents a current reception quality {**0015]-[0020], [0033], [0034], [0039], [0040], [0001], [0020], Figs. 1&2**}; and

switching the speech recognition system over to a mode of operation, which is less sensitive to noise when the noise value exceeds a noise threshold, or outputting an alert signal (SW) to the user when the reception quality value (SQ) drops below a given reception quality threshold, or both {**[0018], [0020], [0034]-[0036], [0039], [0041], [0001], [0020], Figs. 1&2**}.

2. A method as claimed in claim 1, further comprising: automatically resetting the speech recognition system to a previous mode of operation when the reception quality value (SQ) exceeds the reception quality threshold or when the noise value drops below the noise threshold **{[0035], [0036], [0041], [0001], [0020], Figs. 1&2}**.

3. A method as claimed in claim 1, further comprising deactivating a barge-in mode of operation of the speech recognition system when the reception quality value drops below the reception quality threshold or the noise value exceeds the noise threshold **{[0013], [0035], [0036], [0041], [0001], [0020], Figs. 1&2}**.

4. A method as claimed in one of the claims 1, wherein the reception quality value (SQ) or the noise value is determined with a voice activity detector **{ 5, 6, [0033], [0039], [0001], [0020], Figs. 1&2}**.

5. A method as claimed in one of the claims 1, wherein the reception quality value (SQ) or the noise value is determined on the basis of a background signal which is received prior to a beginning of an utterance, or in a speech pause of the user, or both **{[0033], [0001], [0020], Figs. 1&2}**.

6. A method as claimed in claim 4, wherein the voice activity detector applies the reception quality value (SQ) or the noise value or, when the reception quality value drops below the reception quality threshold or when the noise value exceeds the noise threshold, a reception corruption indication signal (SEB) to a dialog control device **{5, 6 11, [0033], [0039], [0001], [0020], Figs. 1&2}**.

7. A method as claimed in one of the claims 6, further comprising: when the reception corruption indication signal (SEB) is received, or when the received reception quality value (SQ) drops below the reception quality threshold or the noise value exceeds the noise threshold, the dialog control device initiates an output of a prompt (SW) indicating that the reception conditions are poor **{10, [0035]-[0037], [0039], [0001], [0020], Figs. 1&2}**.

8. A method as claimed in one of the claims 1, further comprising:

analyzing an incoming signal for a type of disturbance causing the reception quality value (SQ) to be below the reception quality threshold or the noise value to be above the noise threshold, and outputting a prompt (SW) to the user **{[0033]-[0035], [0039], [0001], [0020], Figs. 1&2}**.

9. A speech recognition system **{[0001], [0019], [0021]}**, comprising:

means for detecting a speech signal (SI) of a user **{5. [0021], [0029]-[0031]; [0001], [0020], Figs. 1&2}**;

a speech recognition device adapted to analyze the detected speech signal (SI) to recognize speech information contained in the speech signal **{7, [0021], [0031], [0001], [0020], Figs. 1&2}**;

a quality control device adapted to determine a reception quality value (SQ) or a noise value, representing a current reception quality **{6, [0019], [0021], [0033], [0039], [0001], [0020], Figs. 1&2}**,

a comparator adapted to compare the reception quality value (SQ) with a predetermined reception quality threshold or for comparing the noise value with a given noise threshold **{11, [0021], [0034], [0039], [0001], [0020], Figs. 1&2}**,

and control means adapted to switch the speech recognition system over to a mode of operation which is less sensitive to noise, or an alert signal (SW) is output to the user when the reception quality value drops below the reception quality threshold or when the noise value exceeds the noise threshold, or both **{9, [0013], [0021], [0033]-[0036], [0039], [0041], [0001], [0020], Figs. 1&2}**.

10. A method as claimed in claim 1, further comprising a computer program executable on a computer readable medium for carrying out all of the method comprising:

detecting a speech signal (SI) of a user **{[0020], [0029]-[0031] [0001], [0020], Figs. 1&2}**;

analyzing the speech signal to recognize speech information contained in the speech signal (SI) **{[0020]. [0031] [0001], [0020], Figs. 1&2**;

determining a reception quality value (SQ) or a noise value which represents a current reception quality **{0015]-[0020], [0033], [0034], [0039], [0040], [0001], [0020], Figs. 1&2}**; and

switching the speech recognition system over to a mode of operation, which is less sensitive to noise when the noise value exceeds a noise threshold, or outputting an alert signal (SW) to the user when the reception quality value (SQ) drops below a given reception quality threshold, or both **{[0018], [0020], [0034]-[0036], [0039], [0041], [0001], [0020], Figs. 1&2}**.

11. A speech recognition system as claimed in claim 9, wherein the means for detecting a speech signal comprises a voice activity detector **{5, [0029], [0001], [0020], Figs. 1&2}**.

12. A speech recognition system as claimed in claim 9, wherein the control means further comprises a barge-in switching unit **{9, [0033], [0001], [0020], Figs. 1&2}**.

13. A speech recognition system as claimed in claim 9, wherein the control means further comprises a dialog control device **{10, [0032], [0001], [0020], Figs. 1&2}**.

APPENDIX (Continued)

XII. MEANS OR STEP PLUS FUNCTION ANALYSIS SECTION (41.37(s))

9. A speech recognition system {**[0001], [0019], [0021]**}, comprising:

means for detecting a speech signal (SI) of a user {**5. [0021], [0029]-[0031]; [0001], [0020], Figs. 1&2**};

a speech recognition device adapted to analyze the detected speech signal (SI) to recognize speech information contained in the speech signal {**7, [0021], [0031], [0001], [0020], Figs. 1&2**};

a quality control device adapted to determine a reception quality value (SQ) or a noise value, representing a current reception quality {**6, [0019], [0021], [0033], [0039], [0001], [0020], Figs. 1&2**},

a comparator adapted to compare the reception quality value (SQ) with a predetermined reception quality threshold or for comparing the noise value with a given noise threshold {**11, [0021], [0034], [0039], [0001], [0020], Figs. 1&2**},

and control means adapted to switch the speech recognition system over to a mode of operation which is less sensitive to noise, or an alert signal (SW) is output to the user when the reception quality value

drops below the reception quality threshold or when the noise value exceeds the noise threshold, or both **{9, [0013], [0021], [0033]-[0036], [0039], [0041], [0001], [0020], Figs. 1&2}**.

11. A speech recognition system as claimed in claim 9, wherein the means for detecting a speech signal comprises a voice activity detector **{5, [0029], [0001], [0020], Figs. 1&2}**.

12. A speech recognition system as claimed in claim 9, wherein the control means further comprises a barge-in switching unit **{9, [0033], [0001], [0020], Figs. 1&2}**.

13. A speech recognition system as claimed in claim 9, wherein the control means further comprises a dialog control device **{10, [0032], [0001], [0020], Figs. 1&2}**.

APPENDIX (Continued)

XIII. **EVIDENCE SECTION (41.37(t))**

None.

APPENDIX (Continued)

XIV. **RELATED CASES SECTION (41.37(u))**

None.